

I claim:

1. A method for arranging nodes within a wide-area network for peer-to-peer delivery of live content over the network, said network having at least a primary host computer
5 and at least three client/server tiers comprised of a plurality of client computers, the method comprising:

storing a current network configuration for the three client/server tiers on the primary host computer including a speed ranking for each of the client computers;

receiving at the primary host computer a request over the network from a new client
10 computer for content;

performing a connection speed testing operating on the new client computer to obtain a speed ranking for the new client computer;

comparing the speed ranking of the new client computer with the speed ranking of at least one of the client computers; and

15 based on this comparison, inserting the new client computer within one of the three client/server tiers to form a new network configuration wherein the primary host computer serves content to a first tier of the three client/server tiers, client computers of the first tier serve content to a second tier of the three client/server tiers, and client computers of the second tier serve content to a third tier of the three client/server tiers.

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2. The method of claim 1, further including the steps of:

storing on the primary host computer an order among each of the plurality of client computers for issuing a request for content to the primary host computer;

determining a most recent one of the client computers to issue a request for content;

25 comparing the speed ranking of the new host computer to the most recent one of the client computers; and

replacing within the network the most recent one of the client computers with the new client computer if the new client computer has a higher speed ranking than the speed ranking of the most recent one of the client computers, otherwise comparing the speed ranking of the new
30 client computer with a second most recent one of the client computers.

3. The method of claim 2, further including the step of pushing the most recent one of the client computers to a lower tier after the replacing step.

4. The method of claim 1, further including the steps of:
comparing the speed ranking of the new client computer to each of the plurality of client computers within the network; and
if the new client computer has a speed ranking equal to or slower than the plurality of client computers, then connecting the new client computer as a client node for receiving content from a selected one of the plurality of client computers within the network.

5. The method of claim 4, where the selected one of the plurality of client computers to which the new client computer is connected is determined by:
10 storing on the primary host computer an order among each of the plurality of client computers for issuing a request for content to the primary host computer;
determining a most recent one of the client computers to issue a request for content;
assigning a probability of selection to the most recent one of the client computers based upon a tier location of the most recent one of the client computers;
15 selecting or not selecting the most recent one of the client computers according to the probability; and
if not selecting the most recent one of the client computers, determining a next most recent one of the client computers and performing the assigning and later steps.

20 6. The method of claim 5, wherein the probability of selection is one out of four for client computers located in the second tier and one out of eight for client computers located in the third tier.